ACUTE AND CHRONIC APPENDICULAR PAIN

MEDICAL AND SURGICAL TREATMENT

A CRITICAL ESSAY

BY

DR. SAINT-RENÉ BONNET

CONSULTING PHYSICIAN AT CHATEL-GUYON-LES-BAINS
AUVERGNE, FRANCE

M.D. PARIS, L.R.C.P. LOND., M.R.C.S. ENG.

Reprinted from THE LANCET, May 25, 1907.

BY THE SAME AUTHOR.

A MEDICAL GUIDE TO CHATEL-GUYON, AUVERGNE, FRANCE

ITS SPRINGS AND THEIR USES IN DISEASES OF THE STOMACH, INTESTINE, AND LIVER

With Local Information

(*In English. 1907.*)

The Same in French, 1900.

With Dr Saint-René Bonnet's compliments

ACUTE AND CHRONIC

APPENDICULAR PAIN

MEDICAL AND SURGICAL TREATMENT

A CRITICAL ESSAY

BY

DR. SAINT-RENÉ BONNET

CONSULTING PHYSICIAN AT CHATEL-GUYON-LES-BAINS
AUVERGNE, FRANCE

M.D. PARIS, L.R.C.P. LOND., M.R.C.S. ENG.

Reprinted from THE LANCET, May 5, 1907.

CONTENTS.

ACUTE AND CHRONIC APPENDICULAR PAIN

MEDICAL AND SURGICAL TREATMENT

A CRITICAL ESSAY

THERE is a marked tendency at the present time, in French medical circles, at least, to abandon surgical treatment in cases of acute appendicitis and chronic appendicular pain, and I propose in this paper briefly to review this question and will first consider—

PART I.

Causes which have induced medical men to restrict surgical treatment.

From the very outset, when operations were performed for recurring attacks of pain in the region of the vermiform appendix, the following facts were noted:

1. In the course of operations the appendix was often found to be quite normal or only slightly involved. It seemed therefore difficult to consider it the cause of the trouble which had necessitated the operation.

2. Sometimes when the appendix, whether healthy or not, had been removed, chronic pain persisted just as before; even fresh attacks similar to that of relapsing appendicitis occurred.

3. In spite of the general tendency to resort to surgical treatment there were many cases where the symptoms seemed to point to a fatal termination, but in which, however, recovery was obtained without surgical interference.

1. These strictly medical cures assumed greater importance when the results of operating during the acute period of the affection, with all the risks it entailed, became better known.

These facts at first puzzled both physicians and surgeons; but most of them were explained when careful studies of the morbid syndrome, now so frequently met with and which is called muco-membranous entero-colitis, were made, the intestinal symptoms of which may be thus tabulated.

A. *Acute attacks of appendicitis and chronic appendicular pain in the course of mucous colitis.*

(A) ***In well characterised muco-membranous entero-colitis—***

Chronic constipation, with or without occasional attacks of diarrhœa;

Diarrhœa, which may become chronic, and is observed in the place of chronic constipation more than is generally supposed;

Spasmodic contractions of the large bowel which alternate or co-exist with dilatation of one or more of its portions;

Persistent pain which becomes intense during the acute periods of the affection;

Passage of mucus and casts with occasional intestinal *hæmorrhages* and in some cases abundant evacuations of *intestinal gravel*.

Now there are two important signs which must always be kept in mind, for they are practically never absent.

Firstly, when paroxysms of muco-membranous entero-colitis are localised or predominate in the right iliac fossa at, and around, McBurney's point, they present symptoms which may resemble exactly those of an acute attack of appendicitis, and when there are no acute paroxysms of the disease there may be persistent pain which simulates that of chronic appendicitis. As in true appendicitis, the pain, whether acute or chronic, is of a shooting, stabbing, or colicky character, or is replaced by a

more or less marked sensitiveness in the right iliac region. This pain is increased by movement.

Secondly, experience teaches that when in the course of supposed acute appendicitis or of chronic appendicular pain mucous casts are passed in the stools the physician is bound to feel entirely reassured as to the nature of the trouble and is enabled to give a good prognosis. I have verified this many times since I began to practise at Chatel-Guyon in 1899. The same holds good when a history is obtained of the passing of mucous casts, even a very long time previous to the appendicular pain.

(B) *In latent forms of muco-membranous entero-colitis, in which false membranes are absent.*

There are latent forms of muco-membranous entero-colitis in which mucous casts which have been considered as the main intestinal symptom of the affection are not found. Some authors even consider one of these latent varieties as a special disease, which they call *spasmodic constipation*. It is mainly characterised by intestinal contractions and chronic constipation. Spasmodic constipation I consider to be a latent form of muco-membranous entero-colitis. I think that when the system has been attacked by the morbid process which gives rise to the syndrome muco-membranous entero-colitis it may react in different ways. Sometimes all the usual symptoms are present; sometimes one or more of them are absent. In fact, observation often shows that even after years of alleged spasmodic constipation mucous casts do appear and lead to the diagnosis of the real nature of the disease. Latent forms of the affection are more frequent than is generally thought and may be associated with acute paroxysms or chronic pain in the right iliac region.

It is the careful study of the character of the pain and intestinal spasm in the acute or chronic condition in such latent forms that will make the physician feel reassured.

When an acute paroxysm comes one fact stands out above all others, and that is, that the pain does not possess the peritoneal characteristics.

It does not spread to the whole abdomen as it does in peritonitis, in which the tenderness of the whole abdomen is so acute that the patient cannot even bear the weight of the bed-clothes; on the contrary, the pain, although it may present its maximum intensity at McBurney's point, follows also the ascending part of the colon and diminishes gradually along its transverse segment.

There may be a certain degree of contraction of the abdomen, especially in patients of a nervous temperament, but it is never so marked as to prevent palpation, which, if lightly performed, will show that there are contraction of the cæcum and pain both over the cæcum and the ascending colon: also, that one or more portions of the large intestine are the seat of increased sensibility or of spasm.

I never neglect this methodical and systematic examination of the cæcum and colon and I have come to the conclusion that the information supplied by palpation thus applied is of as great importance as the presence of the mucous casts themselves.

When there is no acute paroxysm but simply chronic pain in the region of McBurney's point palpation becomes much easier and brings out very plainly the painful and spasmodic condition of the large bowel.

Thanks to our actual knowledge of muco-membranous entero colitis we see now why medical instead of surgical treatment is quite rightly applied to the numerous patients suffering from appendicular pain in the course of this affection.

We understand why so many cases of acute or chronic appendicular pain have been ameliorated or cured without operation, and this in spite of the late general belief.

We know that it is especially in this class of patients that surgeons have found the appendix to be either normal or only very slightly affected, and that acute or chronic pain in the appendicular region persisted after the removal of the appendix.

I must lay stress upon another point which I consider is of great practical importance.

The appendices which have been removed after acute paroxysms or chronic pain in the course of muco-membranous entero-colitis and which have been found affected present, what-

ever their other lesions may be, a special degree of resistance. Their walls are thickened and they may be surrounded by protective peritoneal adhesions. The slow and continuous irritation of the morbid process in muco-membranous entero-colitis does not destroy altogether the feeble vitality of the appendix. It does not prevent it from forming cicatricial tissue which, together with the peritoneal adhesions, forms a substantial barrier to fresh and more severe causes of infection.

In these circumstances, should some other cause of appendicitis supervene, although it may give rise to acute or chroni attacks, the patient stands a much better chance of avoiding generalisation of the infection to the whole peritoneum.

B. *Acute and chronic appendicular pain without mucous colitis.*

There is not the slightest doubt that there are cases in which complete recovery has been obtained by medical means alone in patients suffering from either acute appendicitis or chronic appendicular pain and who are quite free from muco-membranous entero-colitis.

Every year I have the opportunity of attending some of these patients who come to Châtel-Guyon to improve the state of their digestive organs and thus reduce their liability to further attacks. (See below, Case 1.)

I can quite understand, therefore, that when the far from satisfactory results obtained by operation during the acute period of appendicitis became known physicians preferred to resort to medical treatment alone.

In the majority of cases the patient is brought safely through the dangerous stage of the affection and the acute period with all its dangers once passed the patient nearly always considers that since medical means succeeded so well one cannot do better than continue with them. On the other hand, the physician may feel that his responsibility will be very great indeed if the patient having safely got through this dangerous appendicular crisis succumbs to an operation even made "*à froid*." And so

both patient and medical man come to the conclusion to have recourse to a compromise, which from a human point of view may be easily understood.

The result is that an operation is put off until the patient's life is greatly endangered by a new attack or until appendicular pain has become so chronic as to constitute a real infirmity.

In short, cases of acute appendicitis, having no connexion with muco-membranous entero-colitis, are operated upon less frequently because cures have been obtained (sometimes quite unexpectedly) by medical treatment and because the risk of a fatal termination, even after the operation "*à froid*," cannot be entirely suppressed.

To sum up the first part of these facts, we see that there have been good reasons for the restriction of the surgical treatment in cases of appendicular pain, and the general tendency to resort more frequently to medical methods seems to me to be quite justified.

On the other hand, however legitimate this opinion may be, one must not neglect the advantages of surgical treatment in special cases; these I shall proceed to consider.

PART II.

Should the modern tendency to resort to medical treatment alone in cases of acute or chronic appendicular pain spread too widely it might lead to the neglect of useful or imperative surgical interference.

(A) ***Appendicular pain occurring in patients who do not present any symptom of muco-membranous entero-colitis.***

I readily admit that in many patients of this class the acute period of appendicitis is ameliorated by using medical means alone; even full recovery may be observed in some instances. (See Case 1.)

Physicians, however, though rightly remembering the reported cases in acute or chronic cases of appendicitis, should never forget the many unknown clinical points they have to face when called upon to express an opinion—i.e.,

Anatomical condition of the appendix,
Its pathological state,
The real cause and the degree of virulence of the affection, and
The resistance of which the appendix is capable.

Experience shows also that in acute or chronic appendicitis a fatal termination sometimes very rapidly occurs.

These very serious facts should always be borne in mind when the comparatively small risks of an operation "*à froid*" are being discussed; they ought to weigh heavily in the balance when the time has come to make a decision.

The question is so much more difficult to solve as there is no certain symptom to guide us as to the future of the affection and thus every acute case has to be carefully studied on its own merits.

Personally, I must say, that in spite of the favourable cases I come across every year the possibility of an unexpected acute attack coming on quite suddenly and ending fatally has always induced me to suggest an operation "*à froid*" when the condition of the patient after a few months' medical treatment has undergone no marked improvement.

(B) *In appendicular pain occurring in patients suffering from muco-membranous entero-colitis.*

I do not think it is possible to get rid of muco-membranous entero-colitis by simply removing the appendix, even when the latter is diseased, and I am confirmed in this opinion by the study of a large number of cases.

Medical treatment, therefore, seems to me to be the most important in such cases.

But, on the other hand, I do not believe that surgical treatment should be entirely abandoned, as is the general tendency in cases of muco-membranous entero-colitis.

There are at least two conditions in which surgical interference may be indicated.

1. In conjunction with the cæcum and the ascending colon, the appendix, even without any change in its structure, plays a part in paroxysmal or chronic pain limited to the right iliac fossa in cases of muco-membranous entero-colitis. Now there are circumstances in which, either because of the general state of the nervous system or for some other reason, the appendix, influenced more especially by the existence of muco-membranous entero-colitis, gives rise to intense secondary reflexes, either general or local.

These reflexes may render the patient a confirmed invalid. (See Case 2.)

This condition specially presents the very serious inconvenience of neutralising all the purely medical means used against muco-membranous entero-colitis.

In cases such as this, when the reflexes to which I have just alluded persist for more than 18 months or two years without improvement, I consider that an operation for removal of the appendix must be seriously thought of, even if the appendix were to be found normal.

I must say, however, that such cases are not frequent.

In Case 2, which is related farther on, operation did not cure the muco-membranous entero-colitis but it stopped the secondary reflexes which, taking their origin in the appendix, practically crippled the patient. Subsequently he was able to get the full benefit from medical treatment, which alone is able to cope with the affection itself.

2. There are chronic cases of appendicular pain in which the condition of the appendix already influenced by muco-membranous entero-colitis may still be complicated by added or supervening causes, such as an exaggerated length of the appendix, appendicular calculi, or the presence of pathogenic micro-organisms.

Of course, thorough diagnosis is very difficult in these circumstances, and although they are not frequent still they do exist and must be taken into consideration, and when once their existence has been suspected the removal of the appendix should be advised.

But should surgical interference be delayed for any reason

in such complicated cases I firmly believe that the presence of muco-membranous entero-colitis is still sufficient to reassure physicians as to the immediate prognosis of acute paroxysms, and this thanks to the already mentioned special resistance of the appendix in this chronic affection.

CONCLUSION.

Thus, in spite of the marked improvement in the study of the indications for medical treatment in acute or chronic appendicular pain, I think it would be a great mistake to approve without reserve the general tendency if it were to lead us systematically to ignore the help given by surgery.

I append a clinical account of three cases in illustration of this paper.

CASE 1.

A typical case of chronic appendicitis, without muco-membranous entero-colitis, cured by medical treatment alone.

The patient, a man, aged 36 years, had led a very active life. His first season at Chatel-Guyon was in 1903. Until 1890—i.e., until the age of 23 years—he had always enjoyed the best of health.

His digestive organs were in perfect order, the functions of the stomach were quite normal, the large intestine was normal in muscular tone and had never been painful, it acted regularly twice a day, and the stools were normal.

In 1890, one morning, whilst the patient was still in bed and just going to get up, he felt all at once a most intense and agonising pain like the stab of a knife at McBurney's point.

Constipation set in immediately and was complete during three days. The whole abdomen rapidly became very painful and the patient could not even bear the weight of the bed-clothes. Vomiting came on but was not frequently repeated. The temperature rose but never became very high. The attack

lasted altogether 15 days. The patient was then able to get up and gradually resumed his ordinary occupations.

Since 1890 the patient had to watch carefully the functions of his stomach, which were very easily upset. There were a semi-chronic state of constipation and a marked constant pain at McBurney's point; the pain was increased by over-eating, by the act of walking, and especially by railway travelling.

In 1899 he had a second very severe attack of appendicitis. Surgical intervention was seriously thought of but was put off for the moment. He recovered from this fresh attack but returned to his previous bad condition.

In 1903 he had his first season at Chatel-Guyon.

On examination of the large intestine no spasmodic condition was found and none of its segments were painful. McBurney's point alone was very tender, as it had always been since 1890. There were neither mucus, nor mucous casts, nor gravel in the stools, but the faeces were very hard and nodular. The stomach was dilated, but both the liver and the kidneys were normal.

Appendicular pain was slightly increased during the first days of the cure, but it did not last long and there was soon a marked improvement of the digestive functions.

A short time after his departure from Chatel-Guyon appendicular pain, which had notably diminished during the latter period of the cure, disappeared entirely and the patient was able to get through a good deal of work without the slightest inconvenience.

He never resorted to the help of any sort of abdominal belt or support and he was only very careful in his regimen.

The large bowel, once again, as previously to the year 1890, began to act regularly twice a day.

In 1904, his second season at Chatel-Guyon, I found nothing abnormal on examining him. The stomach was neither dilated nor painful; the bowel was normal on palpation and there was no pain at McBurney's point. The patient went through his second cure very carefully.

He never came back to Chatel-Guyon and I am informed that he has since been enjoying very good health.

CASE 2.

A case of muco-membranous entero-colitis, in the course of which painful secondary reflexes arising from the appendix quite disabled the patient and necessitated surgical intervention.

The patient, a man, aged 31 years, spent his first season at Chatel-Guyon in 1904.

He had always been of a very nervous and impressionable temperament, but up to the age of 26 years he had never suffered from any disease.

At the age of 26 years he contracted a rather severe attack of bronchitis which lasted a month, but he got quite well again.

In short, until the age of 27 years the patient had a very good appetite, his bowels acted regularly, his stools were normal, and his sleep was perfect.

At the age of 27 years constipation set in for the first time—two or three days passed sometimes without any stools; the faeces became hard and covered with mucus. At the same time digestion was impaired, with a sense of fulness in the epigastric region after meals.

He had also, now and then, colicky pain in the region of the transverse colon, with diarrhœa and mucous casts. For the next three years he had no treatment.

In March, 1903 (at the age of 30 years), he consulted his family physician, since the state of his health had become worse. After having been constipated for several days he passed a motion consisting of very hard matter and soon after a very acute pain in the right iliac fossa came on, lasting 48 hours. The temperature rose to between 38° and 38.5° C.; constipation was complete and there was vomiting. During the paroxysm pain was localised to the right iliac fossa. The crisis disappeared gradually and it was only after complete rest in bed for a period of eight days that the patient felt really better. Since this attack mucous casts were passed in greater quantity in the stools.

In October, 1903, a second painful crisis came on, which lasted two or three days, and, as in the former, was limited to the right iliac fossa.

In March, 1904, a third attack of a violent character, also localised to the right iliac fossa, took place, after which the patient went to Paris for a consultation. The removal of the appendix was strongly opposed. He was told to follow a strict regimen and to have the skin of the affected region cauterised every week for a month with the thermo-cautery.

From March to June, 1904, he had a series of painful attacks which predominated in the right iliac fossa, but extended also to the transverse colon.

In June, 1904, he spent his first season at Chatel-Guyon, where I then saw the patient for the first time. I found that he was exceedingly excitable and impressionable; the stomach was little affected, but the large intestine was contracted and tender in the region of the ascending colon and sigmoid flexure. Pain existed over the flexures of the colon and more particularly at McBurney's point. The right kidney was slightly displaced and gave rise to rather sharp shooting pains, extending from the right lumbar region to the right testicle. The left lobe of the liver was tender on pressure but the rest of the organ seemed normal and in its right position. The patient never had any hepatic colic.

During the time of his "cure" he had a whole series of exceedingly painful attacks localised around McBurney's point, one paroxysm coming on before the other was finished. Pain never presented the peritoneal character.

On arrival at Chatel-Guyon (we must remember this important fact) pain in the peri-appendicular region was so intense as to render the patient practically helpless. He could hardly walk a few steps, and the slightest movement was enough to bring on a paroxysm. There were several acute attacks of pain in the right iliac fossa; constipation was still more obstinate and mucous casts were passed both during paroxysms and in the intervals.

As there had been no improvement in the state of the

patient, who had been reduced to a chronic invalid by the persistent nature of the appendicular pain, he underwent operation and the appendix was removed on May 17th, 1905.

The latter was found to be small, hard, quite free from adhesions, and containing nothing in its cavity. We see, therefore. that the patient's life was in no way endangered by the state of the appendix.) He was able to leave his bed on the eighteenth day after the operation.

The acute persistent character of the appendicular pain disappeared and by attending very carefully to his diet, to hygiene, and by avoiding the least exertion he was able to enjoy quiet short walks and partially to resume his ordinary occupations. His health was thus improved and the spasmodic condition of the bowel, which had been markedly relieved by the removal of the source of reflex irritation, starting from the appendix, had not disappeared entirely but caused very little inconvenience. Constipation had also been greatly ameliorated but the patient still continued to pass as before both mucus and mucous casts.

In May, 1906, he had an acute attack of muco-membranous entero-colitis, characterized by constipation, colicky pain more marked in the right iliac fossa than along the transverse colon, and casts. This acute attack was less intense than before the removal of the appendix.

In June, 1906, he came again to Chatel-Guyon.

On examination I found there was a general spasmodic contraction of the large bowel, but the latter was only slightly tender, even in the right iliac fossa. Constipation was chronic and mucous casts were found in the stools. He could walk standing quite erect instead of nearly bent double as before his operation. After this second visit, and in spite of an acute attack of diarrhœa coming on after severe indigestion. the general health of the patient improved still more. His state of nervous irritability was especially greatly diminished.

From September, 1906, to January, 1907, the bowels acted regularly, with quite normal stools and without the slightest trace of casts.

In January, 1907, the patient contracted influenza, under the influence of which casts were again passed.

He then went through a cure at his home with Chatel-Guyon water and he wrote to me in February saying that although his cure was not complete, yet the bowel had already become normal in its function.

Since his last season at Chatel-Guyon he has been feeling quite a new man; he was able to get through a lot of work, do a good deal of driving, and take outdoor exercise in the shape of shooting. He has gained considerably in weight.

I have given the full details of this case, for it constitutes quite a *résumé* of the facts I have described in this article. It shows also that in spite of the modern tendency and belief there are still cases of muco-membranous entero-colitis in which an operation is necessary.

CASE 3.

A case of chronic muco-membranous entero-colitis in the course of which acute appendicular pain, due to a supervening cause—a large appendicular calculus—necessitated operation; recovery.

The patient, a man, aged 44 years, had lived a long time in Palestine, where he holds a very important and responsible post.

In that country 15 years ago he became suddenly very constipated after a violent emotion. Constipation was soon complicated by intestinal pain of medium intensity and the passage of mucus and casts in his stools.

In short, the patient began to suffer from muco-membranous entero-colitis, which has lasted ever since.

The special feature of this entero-colitis was that in spite of the contracted state of the bowel, the persistent constipation, and the chronic passage of casts, the patient had been remarkably free from very painful paroxysms. Intestinal pain was always bearable.

An important fact occurred towards the end of 1905 whilst the patient was still in Palestine.

The muco-membranous entero-colitis became suddenly worse and painful paroxysms of the most violent character came on in the right iliac fossa with intense pain.

Another attack took place six months later when the patient was in Paris.

Both the first and second acute appendicular paroxysms disappeared after medical treatment. However, the pain in the right iliac fossa, which had increased since the first crisis, caused the patient a good deal of anxiety. The idea of returning to Palestine with his appendix in a diseased state and liable to set up complications at any moment was anything but reassuring and his physician suggested the expediency of an operation.

It was finally decided, however, that the patient should first try the Chatel-Guyon treatment, where I saw him in 1906, a short time after the second attack.

On examination I found all the organs of digestion out of order; the tongue was thickly coated and the stomach was slightly dilated, which in conjunction with the large intestine was the seat of frequent burning sensations. Digestion was slow and difficult. On palpation I noted the cæcum to be very large, in a state of contraction, and very painful on pressure. The sigmoid flexure was also tender and in a state of spasmodic contraction. I found that the pain presented its maximum of intensity not at McBurney's point but a little higher up. The patient, however, stated to me very clearly that during the acute paroxysms he suffered terribly in the appendicular and peri-appendicular regions. Besides, the pain which existed in a chronic state was very notably relieved by his wearing a light belt very tightly drawn. Nothing particular happened during his course of treatment at Chatel-Guyon.

After leaving Chatel-Guyon he went to Switzerland for a rest and followed there a very strict regimen. He was then feeling much better, but a short time later he was suddenly taken with a third acute attack as intense and as serious as the two former ones.

Operation was then decided upon and the appendix was removed "*à froid.*" The appendix was found quite behind the cæcum, to which it was firmly adherent. It was imbedded in strong adhesions and removed with the greatest difficulty. When opened it was found to contain an extremely hard stercoral calculus, measuring four centimetres in length and one centimetre in thickness. At the present time the patient is free from pain in his right iliac fossa but still passes a few casts. He has gone back to Palestine.

We have here another example of the condition of an appendix already influenced by the chronic and subdued irritative process of a prolonged muco-membranous entero-colitis which is suddenly complicated by a supervening and unexpected cause, a large stercoral calculus. One can easily understand that in such a case the diagnosis could only be made after operation. The existence of the firm adhesions in this case serves to show how the appendix reacted and protected itself against the irritation due to the calculus.

Chatel-Guyon les Bains. France.